

I claim:

1. A bypass water valve, which comprises:
  - (a) a housing having a service water inlet and service water outlet, a tank inlet and a tank outlet, and an inner bore in flow communication with said service water inlet, said service water outlet, said tank inlet, and said tank outlet;
  - (b) a geared piston slidably disposed in said housing inner bore and having a pair of ends that have sealing surfaces;
  - (c) a geared knob having a hand actuatable knob and carrying a gear that mates with said geared piston to urge said piston to slidably move axially within said housing inner bore by rotation of said knob;wherein in a service mode one of the sealing surfaces seals in the middle of the inner bore thereby forcing flow down into the unit; wherein in a bypass mode achieved by rotation of said geared knob for translating the piston axially in said housing inner bore so that one sealing surface seals one end of the housing inner bore while the other sealing surfaces seals the other end of the housing inner bore thereby blocking flow to the tank inlet and from the tank outlet, and providing a flow path directly from the water inlet to the water outlet.
2. The bypass water valve of claim 1, wherein said knob is hand actuatable.
3. The bypass water valve of claim 1, wherein rotation of said knob 180° urges said piston from a service mode to a bypass mode and *vice versa*.